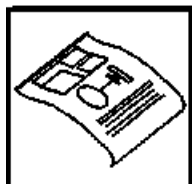




Improve Energy Efficiency with **ENERGY STAR** Air-Conditioners and Heat Pumps

Builder Guide



DESCRIPTION

Frequently home buyers concerns regarding central air-conditioning is limited to whether or not it is provided. But, cooling costs can be a major expense for homeowners. The average minimum efficiency air-conditioner or heat pump costs \$500 per year for space cooling operation. Most major manufacturers of air-conditioners and heat pumps sell ENERGY STAR labeled high efficiency air-conditioners and heat pumps that can reduce these costs by more than \$100 per year.

High efficiency air-conditioners and heat pumps feature high efficiency compressors, fan motors, and improved heat exchangers. These units often offer additional benefits such as improved comfort, quieter operation, longer life, and extended warranties.

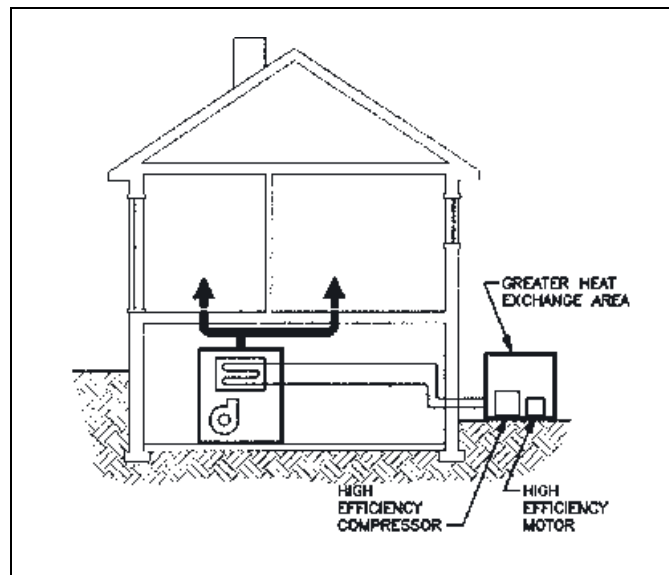


BENEFITS

Providing energy efficient houses with comfortable high efficiency cooling and heating equipment can increase customer satisfaction, reduce callbacks, and increase referrals. These benefits can increase your business and profits.

☐ **ENERGY STAR air-conditioners and heat pumps save money.**

A high efficiency ENERGY STAR air-conditioner or heat pump can reduce cooling bills by over 30% compared to a minimum efficiency air-conditioner or heat pump. For a typical household this can mean



over a hundred dollars savings per year.

☐ **Installation of high efficiency air-conditioners and heat pumps is hassle-free.**

Many HVAC contractors are already experienced in the installation of high efficiency air-conditioners and heat pumps. Providing high efficiency air-conditioners and heat pumps usually requires no changes to your construction practices. Moreover, all manufacturers make ENERGY STAR models, so it is not necessary to change suppliers.

☐ **High efficiency air-conditioners and heat pumps feature higher quality components that last longer.**

Look for quality construction, improved technology, and attention to detail in high efficiency air-conditioners and heat pumps that can result in longer equipment life and often longer warranties on key components.



INTEGRATION

- ☐ **Properly sized HVAC equipment helps to ensure energy efficiency and comfort.**

When combined with other home energy efficiency features such as increased insulation and tight construction, energy efficient HVAC equipment can be right-sized for additional energy savings. Right-sizing can even cover a significant portion of the added cost of high efficiency equipment, because it results in smaller units that cost less. The key to achieving this additional benefit is carefully accounting for energy efficient features and avoiding "rule-of-thumb" sizing techniques. See fact sheet on "Right Sizing HVAC Equipment" and "Right Sized Duct Systems" for more information.

- ☐ **Duct systems should also be properly sized and sealed to prevent system losses.**

Duct system losses can be responsible for degrading the efficiency of any heating or cooling system by more than 20%. Moreover, these losses are even greater for high efficiency air-conditioners and heat pumps. To get the most out of high efficiency air-conditioners and heat pumps, a properly sized, tightly sealed and well insulated duct system should be installed. See fact sheet on "More Efficient Duct Systems" and "Right-Sized Ducts" for more information.



RESOURCES

- ☐ For more information on ENERGY STAR HVAC Program and qualifying equipment, call 1-888-STAR YES.
- ☐ *ARI Directories of Certified Air-Conditioning Products*, Air-conditioning and Refrigeration Institute, 1996. Available at 703-524-8800.
- ☐ *Canadian Home Builder's Association Builder's Manual*, 1994. Available at 1-800-346-0104.
- ☐ *Moisture Control Handbook: Principles and Practices for Residential and Small Commercial Buildings* (Lstiburek and Carmody), 1993. Available at 1-800-346-0104.